

## **REMARKS**

In view of the following remarks, Applicants respectfully request reconsideration and allowance of the subject application. This Reply is believed to be fully responsive to all issues raised in the Office action mailed 07/22/2005 (hereinafter “the present Office action”).

### **Rejections under 35 USC 103(a)**

Claims 1 – 27 of the present application stand rejected under 35 USC 103(a) as being unpatentable over US Patent Publication number 20020082077 to Johnson et al. (hereinafter “Johnson”).

**Claim 1** reads as follows:

1. A method comprising:  
computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors; and  
generating at least one control signal to guide behavior of an entity in the virtual reality environment in accordance with the avatar behavior definition.

In rejecting claims 1 – 27, the Office stated, among other things, that:

Johnson discloses all of the instant application but lacks in specifically disclosing a randomly selected training behavior from a training set of personalized behavior. Instead, Johnson teaches that a training set of behaviors can be saved and can result in a favorable or unfavorable result which effects the avatars ability (behavior). With respect to claims 1, 4, and 6 please see above where the digenome is based on a plurality of traits relative to the environment where the digenome is to be used and where a randomly selected training behavior from a set of personalized behaviors is disclosed in paragraph 60 where the system is capable of creating new characters in substantially random manner including behaviors and arbitrary weighted factors.

Johnson describes a game environment wherein each game character ("digenome") has digenome data and digenetic data associated therewith. As described in paragraph 19 of Johnson, "digenetic data includes data representing the traits, characteristics, and tendencies of the digenomes." As shown and described with respect to FIG. 3 of Johnson, each of the traits described in the digenetic data is defined by a data representing a number of protein tiers (i.e., primary, secondary or tertiary). Proteins are defined by data representing a number of genes. As described in paragraph 60 of Johnson, when a game character is first created, a random number generator may be used to generate the genes, proteins, and traits. That is, the genetic structure of a digenome, as defined by its digenetic data, may be initially created using some programmatic randomness.

As noted in paragraph 17 of Johnson, in contrast to digenetic data, digenome data includes data representing "variables, statistics, parameters, quantities, and/or other information that may impact the results of the competition or how the competition is simulated." For example, digenome data includes data related to: "the digenomes' current physical, emotional, cognitive emotional states; the appearance of the digenomes; the digenomes' current performance levels; the status and inventory of equipment, weapons, fuel, food, clothing, or other items available to the digenomes; dynamic objects associated with the digenomes; and the like."

As described in the section of Johnson titled "Digenome Training," digenomes may be subjected to various training modes (e.g., physical exercise, mental preparation, mock competitions, or sparring). A method for training digenomes is illustrated in FIG. 9. As shown in FIG. 9, and as noted in paragraph 128, once a training session is completed, a database (including the digenome data) is updated to reflect any changes to the digenome data and other game parameters.

While Johnson does not specify what "other game parameters" are modified based on training, it appears that these "other game parameters" are not digenetic data, since not updated based on training. As noted in paragraph 62 of Johnson:

In the preferred embodiment, each digenome includes a unique digenetic structure that ultimately dictates the physical, emotional, cognitive (and possibly other) characteristics and capabilities of the digenome. As found in nature, the unique digenetic structure of a digenome remains constant throughout its life (unless otherwise altered by mutation or digenetic gene therapy).

It is clear from Johnson that training is separate from mutation and gene therapy.

From the preceding discussion of, and quotations from, Johnson, it appears that when a digenome is created, the initial creation of its digenetic information may involve some randomness. However, Applicants can find nowhere in Johnson where digenetic information is described as being altered or selected after creation in a random way, either by training or by some other mechanism. Further, while digenome data is described as being altered by training, there is nothing in Johnson that describes altering or selecting the digenome data in a random way. Stated simply, training, as described in Johnson, does not involve random processes.

Claim 1 recites, “computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors.” Johnson simply does not describe randomly selecting training behavior from a training set of personalized sample behaviors, as recited in claim 1.

As noted in MPEP § 706.02(j), “To establish a prima facie case of obviousness, . . . the prior art reference (or references when combined) must teach or suggest all the claim limitations. Since Johnson does not teach or suggest all of the limitations of claim 1, claim 1 is not obvious in view of Johnson. Claim 1 is believed to be in condition for allowance, and such allowance is respectfully requested.

**Claims 2 - 9** each depends from claim 1 and, therefore, each include all the limitations of claim 1. Therefore, claims 2 – 9 are likewise not obvious in view of Johnson, for at least the reasons set forth above with respect to claim 1. Each of claims 2 – 9 also recites additional operations that, together with the operations of claim 1, define a method that is not obvious in view of Johnson. Claims 2 – 9 are believed to be in condition for allowance, and such allowance is respectfully requested.

**Claim 10** recites, “computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors.” As described above with respect to claim 1, Johnson does not describes randomly selecting training behavior from a training set of personalized sample behaviors. Therefore, claim 10 is not obvious in view of Johnson. Claim 10 is believed to be in condition for allowance, and such allowance is respectfully requested.

**Claims 11 - 18** each depends from claim 10 and, therefore, each include all the limitations of claim 10. Therefore, claims 11 – 18 are likewise not obvious in view of Johnson, for at least the

reasons set forth above with respect to claim 10. Each of claims 11 – 18 also recites additional operations that, together with the operations of claim 10, define a computer program product that is not obvious in view of Johnson. Claims 11 – 18 are believed to be in condition for allowance, and such allowance is respectfully requested.

**Claim 19** recites “an avatar behavior definition module computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors.” As described above with respect to claim 1, Johnson does not describes randomly selecting training behavior from a training set of personalized sample behaviors. Therefore, claim 19 is not obvious in view of Johnson. Claim 19 is believed to be in condition for allowance, and such allowance is respectfully requested.

**Claims 20 - 27** each depends from claim 19 and, therefore, each include all the limitations of claim 19. Therefore, claims 20 – 27 are likewise not obvious in view of Johnson, for at least the reasons set forth above with respect to claim 19. Each of claims 20 – 27 also recites additional elements that, together with the elements of claim 19, define a system that is not obvious in view of Johnson. Claims 20 – 27 are believed to be in condition for allowance, and such allowance is respectfully requested.

## CONCLUSION

Claims 1 – 27 are believed to be in condition for allowance. Applicants respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, please charge such fees to Deposit Account No. 50-0463.

Respectfully submitted,

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